



State of Utah

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DIVISION OF WATER QUALITY
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Director

JUN 13 2016

CERTIFIED MAIL

(Return Receipt Requested)

Mr. David Mc Mullen, President/CEO
CS Mining LLC
1208 South 200 West
Milford, Utah 84751

RECEIVED

JUN 15 2016

Dear Mr. McMullen:

DIV. OF OIL, GAS & MINING

Subject: **Letter of Violation and Warning-** Placement of Unapproved Wastes in CS Mining's Intermediate Tailings Disposal Facility (ITDF), Ground Water Discharge Permit No. UGW010014

The Division of Water Quality (DWQ) has reviewed the First Quarter, 2016 Compliance Monitoring Report submitted to our office May 5, 2016. Included in this report was a narrative description of the initiation of the Agitated Leach Plant. Natural neutralization of the tailings material from the acid leach operation was not as extensive as anticipated by CS Mining's pilot studies. A sample of tailings material measured on March 3, 2016 revealed a pH of 1.2. CS Mining proposes to treat tailings water with lime or dolomitic kiln dust so it can be reclaimed for re-use in the leach circuit. A sample of neutralized tailings water taken on January 7, 2016 revealed it had a Total Dissolved Solids (TDS) content of 4270 mg/l, and a pH of 5.84. Tailings were discharged to the ITDF from January until at least mid-April, 2016. Based on samples taken on March 31, 2016 from the newly-installed monitor well located at the foot of the tailings dam, ground water at the site has a TDS content of around 1700 mg/l, and field pH around 7.76. Ground water of this quality is Class II, as defined in UAC R317-6-3

The ITDF was built under a construction permit issued in conjunction with CS Mining's ground water discharge permit. Under information provided in the application for that permit, tailings were anticipated to have a neutral to slightly alkaline pH and TDS content around 2400 mg/l. The liner for the ITDF was designed and approved based on tailings of that quality. The approved design consists of a 40-mil HDPE liner in the lower portions of the tailings impoundment, and as the tailings filled the impoundment, its higher margins were to be lined with a geocomposite liner, a woven mat containing bentonite.

Considering the actual tailings quality and background ground water quality revealed since the ground

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water discharge and construction permits were issued, the approved ITDF liner construction is not adequate to prevent discharges of contaminants that would result in exceedance of Class II protection levels. In the opinion of DWQ staff, had actual conditions been known at the time of permit issuance, appropriate containment technology for the ITDF liner would consist of a 60-mil HDPE liner with no geocomposite use.

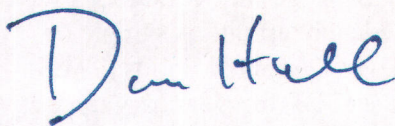
Required Actions

In lieu of further enforcement actions by DWQ, CS Mining shall cease discharge of tailings and process water to the ITDF, and within 45 days of the date of this letter, respond in writing with a plan to provide adequate containment for tailings and water with the characteristics resulting from actual operating conditions. CS Mining shall also propose a contingency plan to be followed in the event that compliance monitoring reveals unacceptable leakage from the ITDF that results in exceedance of Class II ground water protection levels.

In addition to the applicable permit requirements for compliance monitoring, CS Mining shall monitor the newly-installed well located at the base of the ITDF dam **monthly** for ground water elevation and the field parameters of temperature, pH and specific conductance. Since wastes have already been discharged into the ITDF, ground water monitoring requirements specified in the permit, including accelerated background monitoring, are still applicable even in the event of a temporary or permanent shutdown of the milling operation.

DWQ staff would like to arrange a site visit to inspect the permitted facilities and to discuss options for CS Mining to regain compliance with permit conditions. If you have any questions regarding permit compliance or to arrange a site visit, please contact Mark Novak at (801) 536-4358 or mnovak@utah.gov. Thank you for your cooperation.

Sincerely,



Dan Hall, P.G., Manager
Ground Water Section

Cc: Southwest Utah Health Department
Paul Wright, District Engineer
Peter Brinton, DOGM

DJH/MTN:ag

DWQ-2016-010169